



BRIEF IN SUPPORT OF PETITION FOR WRIT OF CERTIORARI.

Opinions of Courts Below.

The opinion of the District Court is found at page 968 of the record. It is reported in 51 U. S. P. Q. 519.

The findings of fact and conclusion of law of the District Court begin at page 954 of the record.

The opinion of the Circuit Court of Appeals is found at page 1038 of the record. It is reported in 53 U. S. Q. 563.

Jurisdiction.

The judgment of the Circuit Court of Appeals was entered May 28, 1942 (R. 1038). /

The statute conferring jurisdiction is U. S. Code, Title 28, Sec. 347 (Section 240-A of the Judicial Code) and U. S. Code, Title 28, Sec. 350.

Statement of the Case.

The petition contains a summary of the most essential facts necessary to an understanding of the reasons relied upon for the allowance of the writ. However a recitation of ultimate facts in respect to the patent in suit is in order.

The patent discloses a system for automatically lubricating the valve operating mechanisms of radial engines. For each cylinder there are two sets of valve mechanism—inlet and exhaust. If for any reason any one of them does not receive lubrication, rapid wear will take place, the unlubricated valve gear will be ruined, and the engine will stop running—with the likelihood of serious consequence

to an aircraft in flight (R. 954). On the other hand, an excess of oil is equally bad. If the spent oil is not drained, fouling will interfere with the operation of the engine (R. 954-955). If a sufficient amount of oil is collected in the combustion chamber by reason of the fact that the oil is not exhausted, there is danger of bending a connecting rod when the engine is again started due to excessive internal pressure in the cylinder (R. 973).

Previous to Schenk's invention, the valve gear of internal combustion engines had been lubricated by introducing pressure oil into the cam follower or tappet and thence through a hollow push rod to a hollow rocker arm and thence through the latter to the valve stem (R. 955). Oil could be forced to the rocker arm boxes of radial engines by old methods and mechanism but it could not be drained therefrom back to the central reservoir by reason of the position of the cylinders. Hence while aeronautical engines with conventional in-line arrangement of cylinders had automatic lubrication for the valve operating mechanism, the radial engines as exemplified by the Pratt & Whitney Hornet and Wasp had to be lubricated by hand on the ground by means of a grease gun (R. 961).

This was time-consuming, required careful attention to each individual valve operating mechanism, with the possibility of one being missed unknowingly or through a clogged fitting (R. 961). The process was uncertain and unreliable (R. 961). After ten or twenty hours of engine use, it was advisable to repeat the whole process; and at each greasing process, all of the valve-operating mechanisms had to be separately adjusted to compensate for the wear which had taken place since last lubrication (R. 961).

Prior to Schenk's invention, no more than three radial engines were ever manufactured with an automatic system for lubricating the valve gear (R. 959). In 1924, Curtiss Aeroplane & Motor Co., Inc. entered into a contract with the United States Army for the manufacture and sale of

three Curtiss R-1454 engines of the air-cooled radial type. These engines were purchased by the Army for experimental purposes (R. 956). One of them is in evidence as Exhibit 118. Before the standard endurance 50-hour test had been completed, this engine was equipped with mechanism designed by the witness Heron to automatically lubricate the rocker arms and valve gear. It was a sumptuous system like Heron's which respondent abandoned in favor of Schenk's construction, the respondent's own expert pointing out the defect which caused the abandonment (R. 973). While under the Heron system, there was no difficulty in providing oil for the valve mechanism, the means of exhausting the spent oil was defective, with the resulting danger of broken or bent connecting rods (R. 973).

Heron's construction comprised (1) a circular manifold having a radius substantially less than the distance from the crank case to the top of the cylinder head (R. 971); (2) a separate scavenge pipe leading from a point at half the height of each rocker arm box to the circular manifold; (3) a horizontal pipe leading from the manifold to a (4) suction pump, which returned the oil to the central reservoir.

Each of the scavenge pipes was of L shape (originally a T-shaped pipe had led from each pair of rocker arm boxes) to permit of flow from the side of the rocker arm box to the circular manifold (R. 958). This return piping "for the majority of the rocker arm boxes is of such arrangement, by reason of its upper direction in whole or in part, as not to permit those rocker arm boxes (on the lower cylinders, R. 957) to be drained by gravity" (R. 958). Heron did not provide a dry sump (R. 958).

The vital defect in the Heron system was that it did not provide gravity drainage from the rocker arm boxes of each cylinder to a dry sump (R. 972-973). Perhaps suction from the manifold sufficed while the motor was in opera-

tion; but when the engine was shut down, the oil in the rocker arm boxes of the lower cylinders overflowed the valve stems, flowed down the valve guides, and, if the valve were open, into the compression cylinder itself (R. 973). This would cause bent connecting rods upon again starting the engine (R. 973).

Schenk's disclosure (R. 173) reveals that he provided a scavenging pipe 39 from an outlet in the lower part of each rocker box extending continuously downwardly to a connection with an outer ring manifold 40 through which the oil was conducted downwardly to a dry sump between and below the lowermost boxes. A scavenge pump returned the oil from the sump to the central reservoir for recirculation.

As regards infringement, the principal contention made in respect to Claims 4 and 14, held by the District Court to be infringed, was that passing the scavenge pipes from an upper rocker box to the one next lower and so around the engine for collection of the oil in a dry sump to be thence pumped to the central reservoir, eliminated the Schenk manifold. The District Court held (R. 977) that in substituting a number of scavenge pipes for connecting the rocker boxes in series around the circumference of the motor there had been appropriated every essential of Schenk's improvement (R. 977).

The reissue claims were attacked as being broader than the original claims, as untimely applied for, and as subject to the defense of intervening rights.

SPECIFICATION OF ERRORS.

1. The Circuit Court of Appeals, in determining invention to be non-existent, erred in applying "a pronounced new doctrinal trend" raising the standard of patentability.
2. The Circuit Court of Appeals erred in relying on negative tests of invention.
3. The Circuit Court of Appeals erred in holding that Schenk made no invention.
4. The Circuit Court of Appeals erred in holding the reissue claims (17, 18, 19, 20) invalid.
5. The Circuit Court of Appeals erred in not holding the claims in issue valid and infringed.

ARGUMENT.

The Schenk Patent Involved Invention.

Each act of Congress authorizing the grant of patents (1790, 1793, 1836, 1870, 1874) provides for the grant only to inventors, as the Constitution requires. Prior to 1836, a patentee received his grant entirely at his own risk of its defeat by proof of prior knowledge or use, and without any method of ascertaining whether such use, etc., existed. The Act of 1836 relieved inventors of this difficulty as far as possible by providing a tribunal, the Patent Office, before which the right of the applicant to his patent might be examined and determined. Since that time, the Federal courts and the Patent Office have developed a standard of measurement usable in determining invention.

It is now conceived, however, and applied prejudicially in the instant case, that the standard of measurement has itself changed. For over a century positive principles have been applied and reiterated. It is now set forth, apparently as a corollary of the "pronounced new doctrinal trend", that the producer's mind and mental processes be examined, as though by introspection, to search for a "flash of genius." *Cuno Engineering Corp. v. Automatic Services Corporation*, 314 U. S. 84, 91.

In this atmosphere, created by itself as we view it, and not imposed by the Supreme Court, the Circuit Court of Appeals falls into two errors, to petitioners' detriment.

It is submitted that in only one sense is the mental activity of the patentee pertinent: His act of conception must be creative, not *imitative*. Beyond this the fact of what he accomplished determines whether the originality displayed by him is mere mechanical plodding or pioneer-

ing. The law looks more to the *fact* than to the process by which it is accomplished. The Patent Act is designed to be practical, not metaphysical. It gives a reward for accomplishment beyond that of imitative plodding. This was the first error of the Circuit Court of Appeals. It considered the recent expression of the Supreme Court, "flash of genius", to be more than a verbal departure from the more usual expressions employed to distinguish between invention and mechanical skill.

The philosophy employed in the instant case would have negatived invention in the Edison electric light bulb. *Edison Electric Light Co. v. U. S. Elec. Lighting Co.*, 52 F. 300, C. C. A. 2. Edison's several thousand attempts were in the category of "trial and error."

The second error in the tests applied by the Circuit Court of Appeals was in the assumption that the Supreme Court has raised the standard of invention.* This was hasty generalization, for it is not believed that the Supreme Court has so intended. From two viewpoints generalizing from a decade of decisions is not warranted. First, the time interval compared with the age of the Patent System is insufficient. Second, since the amendment of the Judicial Code prior to the beginning of the decade, the Supreme Court considers fewer patent cases per unit of time.

A comparison of old and recent decisions as examples is persuasive that there is neither a new doctrinal trend nor a raising of standards.

As Judge Frank pointed out (R. 1056), the expression, "flash of genius", in the *Cuno* case, 314 U. S. 84, 91, is scarcely different than "flash of thought" in *Densmore v.*

*Fifty-five years ago it was said that the standard of mechanical skill is constantly being raised and the field of invention narrowed. *Wilcox v. Bookwalter*, 31 F. 224. A repetition of similar thought is interesting as a matter of history of the Patent System.

The expression in the *Wilcox* case followed within a few years the Supreme Court expression, "flash of thought", in *Densmore v. Scofield*, 102 U. S. 375, 378.

Scofield, 102 U. S. 375, 378, in 1880. The expression of the Supreme Court, "intuitive faculty of the mind", in *Hollister v. Benedict Mfg. Co.*, 113 U. S. 59, 72, 1885, is likewise similar. In the latter case "intuitive faculty" was contrasted with "the suggestion of that common experience which arose spontaneously, and by necessity of human reasoning."

Throughout the period beginning with our modern Patent System (1836) the *fact* of accomplishment has seemed to be the determining test, novelty established. It was so in the *Diamond Rubber Co. v. Consolidated Tire Co.* (Grant tire case), 220 U. S. 428, 1911; *The Barbed Wire Patent*, 143 U. S. 275, 283, 1892; *Webster Loom v. Higgins*, 105 U. S. 580, 1881; *Krementz v. Cottle Co.*, 148 U. S. 556, 560, 1893; *Eibel Process Co. v. Minnesota, etc.*, 261 U. S. 45, 1923; *Minerals Separation Co. v. Hyde*, 242 U. S. 261, 1916.

It was in the first of these cases that the Supreme Court said that "its simplicity should not blind us as to its character" and spoke also of "the light of the accomplished results." The same characterizations could have been applied with equal pertinence in each of the other cases.

Decisions within the decade do not depart from the precedents above. In the *Cuno* case, a thermostat employed in many electrical appliances was coupled analogously with an old cigarette lighter. The Court said it could not relax the rule of *Hotchkiss v. Greenwood*, 11 How. 248, 267, 1851, that "more ingenuity must be involved than the work of a mechanic skilled in the art." Attention was called to the fact that the *Hotchkiss* case was decided in 1851. This does not indicate a "new doctrinal trend."

Toledo Pressed Steel Co. v. Standard Parts, Inc., 307 U. S. 350, 1939, furnishes another within-the-decade example. There the patentee "put over the wick of a torch well known in the art, an inverted cup-like cap having holes in its sides. * * * The cap was also well known and had

been used as a part of other devices for the protection of kerosene and other flames." In support of its conclusion that mere mechanical skill was exhibited the Court cited *Hollister v. Benedict & Burnham Mfg. Co.*, 113 U. S. 59, 1885, and *Altoona Theatres v. Tri-Ergon Corp.*, 294 U. S. 477, 1935, fifty years later.

In the latter case, within the decade, the patentee added a flywheel to a shaft for speed constancy. In the art were numerous patents showing the like use of a flywheel in apparatus for producing motion pictures. Again the Court, in finding that no invention was involved, relied on precedents old and new.

In the last patent decision of the Court, *Williams Mfg. Co. v. United Shoe Machinery Corp.*, May 25, 1942, 53 U. S. P. Q. 478, the Court held that a new combination involving old mechanical construction combined them in a new way to produce an improved result. The claims were held valid.

It appears from the foregoing discussion and examples that the Supreme Court has not evidenced in its recent decisions "a pronounced new doctrinal trend" raising the standard of invention. In the decisions within the last decade the Court has referred to and applied rules which have existed since the origin of the patent system. These authorities are not shaken or undermined by recent decisions. The test and fact of accomplishment, where others tried and failed, is a positive test still applied. The patent cases decided by this Court in the last decade are treated in somewhat greater detail in an Appendix.

Schenk did not imitate; he created. And by his creation he accomplished. The application of a century of precedents is in concurrence with this view.

Applying the test of the difference between mere mechanical skill and invention, in the many forms in which those tests have been worded, Schenk made an invention of a high order. He made the first successful automatic

lubrication system for the valve gear of a radial engine.* The frank admission of the respondent and the failure of their efforts, the abandonment of the Heron system because of its inherent defects, and the adoption of the Schenk disclosure—all these spell invention positively. The importance and utility of the Schenk contribution cannot be gainsaid. Respondent gave credit by “fulsome praise” to automatic valve gear lubrication. The acknowledgment by respondent of the part which Schenk played in the creation of the system was an attempt to buy an interest in his patent by stealth.

Apparent simplicity does not deny invention. The possible argument that all Schenk did was to make intelligent use of the force of gravity is no more effective in the instant case than it was in the *Eibel Process* case. Similar argument could be made against the Morse telegraph patent, 15 How. 62, for in one sense all Morse did was to apply scientific principles of electro magnetic induction taught by Faraday.

The Schenk Patent Is Infringed.

The District Court found infringement of Claims 4 and 14, original claims. Finding these claims invalid, the Circuit Court of Appeals did not pass upon infringement. But infringement is clear. The joining of upper to lower rocker arm boxes around the outer edge of the motor by scavenge pipes accomplishes the same result in the same way as in Schenk. It is the full equivalence of the outer ring manifold shown in the Schenk drawings and disclos-

* The District Court found (R. 971) that the respondent's system for automatic lubrication was operable. The tests, however, were for motor endurance. The lubricating system was changed during the test. As the defendant's expert testified (R. 973) the defect of the Heron system would not become apparent during the operation of the motor while suction was available. It was after the motor stopped and the oil could drain into the cylinders that the defect appeared. The extent, if any, to which the Heron system was operable is more clearly demonstrated by its abandonment, the backward step to hand lubrication, and the adoption of the Schenk system, than by any conclusion drawn from other evidence.

ure, and comes literally within the claims, particularly Claims 4 and 14.

The Reissue Claims Are Valid.

The reissue was a proper one. The reissue claims are not broadened over the original claims; and the defendant has no intervening rights.

Conclusion.

From the foregoing, it is submitted that the Circuit Court of Appeals mistakenly believed that there exists in the Supreme Court "a pronounced new doctrinal trend" by which there is shown "an increasing disposition to raise the standard of originality necessary for a patent." By reason of the supposed existence of such a doctrine, and by reason of the fact that the Circuit Court of Appeals interprets "flash of genius" to exhibit a novel expression and thought, the petitioners were prejudiced and a patent stricken down which should have been sustained.

The question of whether this Court has departed from the rules and precedents by which invention is determined is vital and vastly important, not only in its application to this case, but to every member of the public, the residuary beneficiaries of the patent system.

WHEREFORE, your petitioners pray that their petition be granted; that the writ of certiorari be issued; that the cause be reviewed; and that the decree of the Circuit Court of Appeals be reversed.

Respectfully submitted,

GEORGE I. HAIGHT,

RAYMOND L. GREIST,

M. K. HOBBS,

Attorneys for Petitioners.